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(54) Title: METHOD FOR THE POINT OF USE PRODUCTION OF AMMONIA FROM WATER AND NITROGEN

(57) Abstract: The present invention discloses a method for the manufacture of high purity ammonia, hydrogen, and nitrogen from de-ionized water and standard nitrogen. De-ionized water is degassed and fed to an electrolytic hydrogen generator to produce raw hydrogen. The hydrogen is purified and mixed with purified nitrogen, compressed, and fed to a catalytic ammonia reactor. Following purification, the ammonia is delivered to the semiconductor process tool along with purified hydrogen and purified nitrogen.

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